CLAIMS

1. A method for providing dynamic deployment of grid services over a computer network, comprising:

installing grid artifacts in a directory located on a target hosting environment in response to an invocation of an implementation of a deployment grid service, said grid artifacts including:

a Web service deployment descriptor;

a service implementation; and

a WSDL describing said service implementation; and

providing addressability of said grid service to a client system by updating said Web service deployment descriptor with service data elements and typemappings associated with said client system;

wherein said artifacts are resident in a GAR file provided by a grid services deployment system.

2. The method of claim 1, wherein installing said service implementation includes:

extracting Java class files from said GAR file;

copying said Java class files into a first subdirectory on said target hosting environment directory;

extracting Java Jar files from said GAR file; and

copying said Java jar files into a second subdirectory.

3. The method of claim 1, wherein installing said WSDL includes:

extracting WSDL files from said GAR file; and

copying said WSDL files into a third subdirectory on said target hosting environment.

4. The method of claim 1, wherein installing said Web service deployment descriptor includes:

extracting service Web Service Deployment Descriptors (WSDD) files;

copying said service WSDD files into a temporary directory of said target hosting environment directory;

extracting client Web Service Deployment Descriptors (WSDD) files; and

copying said client WSDD files to a temporary directory at said target hosting environment.

5. The method of claim 1, wherein said installing said grid artifacts in a directory further includes:

copying said GAR file into a deployedGARs subdirectory in said target hosting environment directory, wherein said copying said GAR file into a deployedGARs subdirectory is operable for undeploying a grid service operation.

6. The method of claim 1, wherein said updating said Web service deployment descriptor with service data elements and typemappings associated with said client system comprises:

merging said service element and sub-elements into said active WSDD; and

merging any service XML-to-Java typemappings needed for XML-to-Java serialization and deserialization based upon said types defined in a grid service's WSDL definition; and

merging any client XML-to-Java typemappings into said active client WSDD in the event that said grid service itself is a client to another grid service.

7. The method of claim 1 wherein multiple grid services are simultaneously deployed.

8. A method for providing dynamic undeployment of grid services over a computer network, comprising:

removing grid artifacts from a directory located on a target hosting environment, said grid artifacts including:

a Web service deployment descriptor;

a service implementation; and

a WSDL describing said service implementation.

9. A system for providing dynamic deployment of grid services over a computer network, comprising:

at least one web-enabled client system;

a host system in communication with said at least one client system, said host system operating in an OGSI architected environment;

a grid services deployment system executing on said host system;

at least one hosting environment system, said at least one hosting environment system providing grid services; and

a host directory located on said at least one hosting environment system;

wherein said grid services deployment system performs:

installing grid artifacts in a directory located on a target hosting environment in response to an invocation of an implementation of a deployment grid service, said grid artifacts including:

a Web service deployment descriptor;

a service implementation; and

a WSDL describing said service implementation; and

providing addressability of said grid service to said client system by updating said Web service deployment descriptor with service data elements and typemappings associated with said client system;

wherein said artifacts are resident in a GAR file provided by a grid services deployment system.

10. The system of claim 9, further comprising a user interface operable for interacting with said at least one web-enabled client system.

11. A storage medium encoded with machine-readable computer program code for providing dynamic deployment of grid services over a computer network, the storage medium including instructions for causing a computer to implement a method, comprising:

installing grid artifacts in a directory located on a target hosting environment in response to an invocation of an implementation of a deployment grid service, said grid artifacts including:

a Web service deployment descriptor;

a service implementation; and

a WSDL describing said service implementation; and

providing addressability of said grid service to said client system by updating said Web service deployment descriptor with service data elements and typemappings associated with said client system;

wherein said artifacts are resident in a GAR file provided by a grid services deployment system.

12. The storage medium of claim 11, wherein installing said service implementation includes:

extracting Java class files from said GAR file;

copying said Java class files into a first subdirectory on said target hosting environment directory;

extracting Java Jar files from said GAR file; and

copying said Java jar files into a second subdirectory.

13. The storage medium of claim 11, wherein installing said WSDL includes:

extracting WSDL files from said GAR file; and

copying said WSDL files into a third subdirectory on said target hosting environment.

14. The storage medium of claim 11, wherein installing said Web service deployment descriptor includes:

extracting service Web Service Deployment Descriptors (WSDD) files;

copying said service WSDD files into a temporary directory of said target hosting environment directory;

extracting client Web Service Deployment Descriptors (WSDD) files; and

copying said client WSDD files to a temporary directory at said target hosting environment.

15. The storage medium of claim 11, wherein said installing said grid artifacts in a directory further includes:

copying said GAR file into a deployedGARs subdirectory in said target hosting environment directory, wherein said copying said GAR file into a deployedGARs subdirectory is operable for undeploying a grid service operation.

16. The storage medium of claim 11, wherein said updating said Web service deployment descriptor with service data elements and typemappings associated with said client system comprises:

merging said service element and sub-elements into said active WSDD; and

merging any service XML-to-Java typemappings needed for XML-to-Java serialization and deserialization based upon said types defined in a grid service's WSDL definition; and

merging any client XML-to-Java typemappings into said active client WSDD in the event that said grid service itself is a client to another grid service.

17. The storage medium of claim 11 wherein multiple grid services are simultaneously deployed.